

REMARKS / DISCUSSION OF ISSUES

The present amendment is submitted in response to the Office Action mailed September 25, 2008. Claims 1-7 remain in this application. In view of the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Requirement for Information

In response to the Examiner's request for the names of any products or services that have incorporated the claimed subject matter, Applicant respectfully submits that there are no products or services that have incorporated the claimed subject matter.

Rejections under 35 U.S.C. §102(b)

In the Office Action, Claims 1-7 stand rejected under 35 U.S.C. §102(b) as being anticipated by the /Ethereal NoC ("Ethereal") as disclosed in "Concepts and Implementation of the Philips Network-on-Chip" by Dielissen et al. ("Dielissen") and "Communication Services for Networks on Chip" by Radulescu et al. ("Radulescu"). Applicant respectfully traverses the rejection.

It is axiomatic that anticipation of a claim under 35 U.S.C. §102(b) can be found only if the prior art reference discloses every element of the claim. See In re King 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co. 730 F. 2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

The cited portions of Dielessen fail to disclose or suggest "a mapping means (A) for mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification", as recited in claim 1. Instead, the cited portions of Dielessen describe a network interface (NI) for providing conversion of the packet-based communication of the network to the higher-level protocol that the IP modules use. The network interface (NI) is comprised of two parts: (a) the NI kernel, which provides the basic functionality, including arbitration between connections, packetizing of messages and schedules them to the routers, ordering, end-to-end flow control, and a link protocol with

the router, and (b) the NI shells, which implement additional functionality, such as multicast and narrowcast connections, and adaptors to existing protocols, such as AXI or DTL. Shells can be plugged in or left out at instantiation time according to the needs to optimize area cost. Further, the cited portions of Dielessen describe that the network interface (NI) communicates with the NI shells via ports, (e.g., DTL ports and AXI ports). A port can have multiple connections to allow differentiated traffic classes (e.g., best effort or guaranteed throughput). Fig. 7 of Dielessen illustrates an NI with two DTL ports and two AXI ports. Dielessen further shows master and slave shells in Figs. 8 and 9, respectively, to sequentialize commands and their flags, addresses and write data in request messages, and to desequentalize messages into read data, and write responses. Examples of message structures after sequentialization are shown in Fig. 10 of Dielessen. Applicants respectfully submit that providing a network interface (NI) comprised of DTL ports and AXI ports for providing narrowcast and multicast connections and for sequentializing commands and desequentializing messages is different from offering differentiated services for protocols such as DTL, MTL, AXI, and OCP, by mapping the identification means of these protocols to connections. The identification means in the existing protocols are: communication threads and addresses, i.e. the threads or addresses are mapped to connections through the interconnect based on specific connection properties. Therefore, the cited portions of Dielessen fail to disclose or suggest a mapping means for mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification, as recited in claim 1.

The cited portions of Radulescu fail to disclose or suggest “a mapping means (A) for mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification”, as recited in claim 1. Instead, the cited portions of Radulescu describe that communications between NIPs is performed on connections. Connections describe and identify communications with different properties, such as guaranteed throughput, bounded latency and jitter, ordered delivery, or flow control. Radulescu further discloses that connections are similar to the concept of threads and connections from OCP and VCI, but are more broadly defined to include more than the

ordering property. Radulescu further teaches that, depending upon the requested services, the time to handle a connection (i.e., creating, closing, modifying services) can be short. However, it is respectfully submitted that Radelescu fails to teach a “mapping means” for mapping a requested communication service, based on specific communication properties to a connection based on a set of properties. That is, Radelescu is silent with respect to mapping. Radelescu merely discloses that in the prior art, An Athereal connection must be created with the desired properties, before being used. Applicants respectfully submit that Radulescu fails to disclose or suggest a mapping means for mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification, as recited in claim 1.

Thus, the cited portions of Dielessen and Radulescu, individually or in combination, do not disclose or suggest “a mapping means for mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification”, as recited in claim 1. Hence claim 1 is allowable.

Claims 2-5 depend from claim 1, which Applicant has shown to be allowable. Hence the cited portions of Dielessen and Radulescu fail to disclose or suggest at least one element of each of claims 2-5. Accordingly, claims 2-5 are also allowable, at least by virtue of their dependence from claim 1.

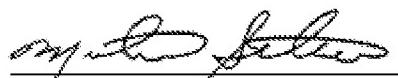
Independent Claims 6 and 7 recite similar subject matter as Independent Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 6 and 7 are believed to recite statutory subject matter under 35 USC 102(b).

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-7 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,



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